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Utilization of Preferential Tariff under ASEAN Free Trade Area (AFTA): Case of Malaysia

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1. Introduction

Since the establishment of ASEAN Free Trade Area (AFTA) in 1992 and over 20 years of its implementation, ASEAN intra-trade values have increased rapidly. As an active member of ASEAN, Malaysia has played a significant role in introducing and implementing AFTA. Malaysia's export to ASEAN total to around 27% of its total export from year 2007 to 2013 (ASEAN Secretariat Statistics Database, 2015). For the same period, Singapore was Malaysia's main export destination, which accounted to around 54% of its export to ASEAN. Malaysia's export to Singapore generally was not affected by the preferential tariff rates under AFTA as Singapore has liberalized its entire tariff under the Most Favored Nation (MFN) scheme at 0%. Malaysia's export to the remaining 8 countries in ASEAN is subject to different tariff rates. Although, essentially under a Free Trade Agreement (FTA), a common tariff should exist, AFTA is quite unique. Each ASEAN country has their own tariff lines, rates and coverage and liberalize their tariffs according to their own pace. As of February 2015, average tariff rate for Malaysia was recorded at 0.05 compared to ASEAN's overall rate of 0.23 (ASEAN Secretariat, 2015).

At several high level ASEAN Meetings, Leaders of ASEAN have always stressed that AFTA has contributed significantly in increasing the ASEAN intra-trade. Due to very limited data on tariff utilization under AFTA, the contribution of AFTA and its effect towards ASEAN intra-trade is not clear. The tariff under AFTA, Common Effect Preferential Tariff (CEPT) was introduced in 1992. The ASEAN Economic Ministers signed the Agreement on CEPT and it set as a basis in implementing the tariff mechanism of AFTA (ASEAN Secretariat, 2015). From the very beginning, ASEAN members had their own virtue to set and impose tariff on goods although in principle the tariffs should be eliminated. The gradual and delayed reduction and elimination of tariffs has made AFTA quite complex in terms of implementation. Adding to this complexity is division of goods according to certain lists. The move to have this list can be regarded as a pushing factor to encourage tariff reduction and elimination. The list included under the CEPT for imported goods is called the Inclusive List (IL) that comes in two forms, namely the fast track and normal track. As

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for fast track, tariffs on imported products were lowered to 0-5% by 2002. These products among others were rubber products, textiles, gems and jewelry, and chemical products. Whereas for normal track, tariffs were reduced to 5% by 2007 (ASEAN Secretariat, 2014).

During the 21st ASEAN Free Trade Area (AFTA) Council Meeting held in the Philippines in August 2007, there was consensus among ASEAN countries of adopting a comprehensive trade in goods agreement in ASEAN. At the meeting, ASEAN Economic Ministers expressed the need to further improve and expand the CEPT scheme and to transform it into a comprehensive trade in goods agreement. From that move onwards, CEPT was gradually replaced with ATIGA and entered into force on 17 May 2010 (ASEAN Secretariat, 2014). As of 1 January 2010, Malaysia with five other ASEAN countries (Brunei Darussalam, Indonesia, the Philippines, Singapore and Thailand), known as the ASEAN-6 is regarded as a complete free trade area with elimination of tariff for 99% of products in the Inclusion ASEAN-6 has 99.20% of tariff lines in the Inclusion List at 0%. Only 0.35% or less than 1% of the Tariff Lines in the Inclusion list has import duties. The remaining countries, Cambodia, Laos, Myanmar and Vietnam (referred as CLMV) has 90.85% of the tariff lines in the Inclusion List that are at 0%.On average, ASEAN has 95.99% Tariff Lines at 0% in accordance to the ATIGA Tariff Schedule of 2015 (ASEAN Secretariat, 2015).

Both the schemes of CEPT and ATIGA included the Rules of Origin (ROO) like any other preferential trade arrangements. ROO sets out the conditions under which goods traded under free trade or preferential trade arrangements are considered "originating". This is to ensure that goods are manufactured or transformed in the exporting country through substantial value-added activities. Goods that are merely transshipped or underwent simple processes do not qualify under ROO(Krishna K. , 2006). The preferential import tariff rates are then granted when compliance to the specific ROO is matched by the exporting party. To ascertain this, governments in the exporting country would need to certify the products and produce the Certificate of Origin (CO) also known as Form D. Under both CEPT and ATIGA, the issuance of Form D or CO is by a designated government authority. Only products with the COs would enjoy the preferential tariff.

At the same time, countries within ASEAN also impose tariff rates under the MFN. According to WTO, MFN tariffs are what countries promise to impose on imports from other members of the WTO, unless the country is part of a preferential trade agreement (such as a free trade area or customs union). This means that, in practice, MFN rates are the highest (most restrictive) that WTO members charge one another (World Bank, 2007). Under this circumstance, some of ASEAN countries such as Singapore has all its MFN tariff at 0%, thus creating a distortion on the use of CEPT or even going through the process of getting COs. This is also evident for countries that have increasingly liberalized their MFN Tariff rates to be at the same level as CEPT/ATIGA rates.

The decision by a country to set its tariff rate under CEPT or MFN tariff can be viewed from two angles. The first is that the trade-policy decisions of one government give rise to an externality that affects the welfare of another government. This is the possibility that is stressed in the traditional economic approach to trade agreements (Bagwell & Staiger, 2002). This approach is used by a government to set its import tariff in order to maximize national welfare and recognize that some of the cost of the tariff falls upon foreign exporters whose products sell at lower world price. This terms of externality as described by (Helpman, Elhanan, & Krugman, 1989) point out that unilateral tariff choices can be inefficient in the presence of monopolistic competition, even in the absence of terms of trade movements.

This would then naturally point out that governments would set unilateral tariffs that are higher than what would be efficient. Ultimately, the purpose of trade agreement is then to eliminate the terms of trade driven restrictions in trade volume that arise when policies are set unilaterally and thereby offer governments a means of escape from a Prisoner's Dilemma (Bagwell & Staiger, 2002). The impression that is given by Bagwell and Staiger is focused at the elimination of tariffs that is related to the trade volume and it would not necessarily mean the total elimination of tariffs or terms of trade driven restrictions for the entire list of goods in an agreement. Purpose of trade agreements is merely to escape from the restrictions or policies that are set unilaterally by a government and it would only make sense if the volume of trade that is related to the so called escape is granted such escape route by an agreement. This is sometimes not the case in many trade agreements whereby the governments maximize national welfare by protecting certain industries and nevertheless the volume of trade that actually matters is not given the so-called escape route. It must be pointed out that this traditional approach seems unrealistic to substantiate the hypothesis that governments maximize national welfare.

The second angle is when government is unable to make credible commitments to its own private sector. As an example, a government may commit that in future it will not protect certain industry or it will undertake extensive regulatory reforms. Although such commitment is potentially valuable to the government, as it would allow investment in cost reduction or increase in exports, if the private sector does not respond to the government's decision, then it might not be credible for the government to follow through on its proposed plan. A trade agreement can potentially help a government solve its time-consistency problem (Bagwell & Staiger, 2002) if the agreement enhances the credibility of the government's plan. Since most ASEAN countries are in developing stage, the decision to set its tariff under CEPT is rather complex and this pose a threat for full utilization of the tariff besides the stringent Rules of Origin.

2. Literature Review

Studies estimating the utilization rate of any preferential tariff of an FTA most commonly use and analyze the actual transaction level customs data (from an importer perspective) or data on values of certificate of origin (from an exporter perspective).

Such common practices were applied in studies on preference utilization for the European Union (EU) or the US markets which data on preference utilization is available. Most literatures focused on the two aspects above by illustrating the different sectors using a number of methodologies.

Among the complete assessment on preference utilization for the EU was conducted by Candau, Fontagne, & Jean (2004). The study was aimed to examine the effectiveness of EU's preferential agreements in granting their partners improved market access. By looking at the level of utilization of exporters when entering the EU's market which includes several protection measures, the study suggested that underutilization of preferences does not have a large average impact on the protection faced by exporters when acceding the European market. It however suggested that utilization of preferences is lower when the preferential margin is small suggesting that compliance costs are not negligible. In general the study came up with a result of 82% on average for the utilization rate and for the higher preferential margin products. Another study used a probit model and year 2002 data at exporter product level for agriculture in the EU and US suggested a positive relationship between the probability of using preferences and preferential margins as well as export values with overall utilization rates above 80% (Bureau, Chakir, & Gallezot, 2006). Interestingly, the study concluded that only a very small proportion of the imports eligible to preferences are actually exported outside a preferential regime. Besides that, the study showed that the flow of imports from poorest countries remained very limited with even generous tariff preferences, which led to question the overall impact of preferential agreements.

Another study that used panel data to assess utilization rates of the US GSP found a positive impact of the preference margin and export volumes (Hakobyan, 2012). The study noted that about 40% of imports qualifying for GSP enter the US without using the available preferences. The study was undertaken by constructing a panel dataset that combines a measure of GSP utilization at the country product level and country industry level production data for 68 GSP eligible countries exporting about 5000 products to the US from 1997 to 2008. The findings suggested that a higher local content share and greater remoteness of beneficiary countries lead to higher utilization rates. In addition the study found that utilization rate rises with the preference margin, size of exports, regional cumulation and declines with degree of processing.

By focusing on impact of exports under the African Growth and Opportunity Act (AGOA) to the US, another study revealed that the utilization rates were generally high overall but there were a range of countries that suffered low utilization level which was characterized to be below 50% for the textile industry (Brenton & Ikezuki, 2004). Noting this disparity the study suggested that studies related to determinants of preference utilization should examine the cost involved in utilizing preferences.

These studies consistently conclude that FTA preference utilization is higher in the products with the larger tariff margin and less restrictive ROO. Moving into AFTA, to the author's knowledge, only one study that used the data of Certificate of Origin (COO) to measure the utilization rate and it was for Thailand.The study used the method from an export perspective analyzing the COO data in case of Thailand (Leelawath, 2012). The study analyzed the utilization of tariff preference offered by Thailand under AFTA to other ASEAN members and investigated the potential reasons exporters opt not to utilize such benefits. Leelawath (2012) also provides a number of policy recommendations to overcome these problems, to promote utilization of preferential tariffs and boost the volume of trade between Thailand and ASEAN member countries. According to him, there were numerous ex-ante and ex-post studies that have analyzed the impacts of the establishment of AFTA on Thailand on various aspects of the economy. When combined, these studies "painted mixed pictures" and touched upon all of AFTA's potential positive and negative impacts on different economic and social variables. Whatever their conclusions, however, the majority of these studies operated based on the assumption that tariff utilization was at 100% and they did not take into account the fact that not all exporters take advantage of preferential tariffs under AFTA (Leelawath, 2012). Essentially, this means that every unit of eligible exporting product is subject to the rates of preferential tariffs. Unfortunately, this is not always the case. These studies still do not answer the question on whether AFTA through its preferential tariffs has actually benefitted ASEAN or not.

As such, the study also focused on the groups of products that make substantial contributions to the Thai economy. The study selected the top twenty of Thailand's exported products to compute the preferential tariff utilization rates for each ASEAN member country. This likely relates to other results that show that, for the most part, the utilization rate of manufacturing exports were higher than the other exports sectors. For exports to the Philippines, Vietnam, Myanmar, Indonesia, Cambodia, and Malaysia the products with the highest utilization rate were from the manufacturing sector. Yet other smaller nations like Brunei and Laos, the utilization rate of agro-industry products led other sectors; while, in ASEAN's most developed nation, Singapore, the utilization rate for exports was highest for minerals and fuels (Leelawath, 2012). However, even in many of the sectors with the highest utilization rates, however, many of the rates remained shockingly low. These low utilization rates indicate that many Thai exporters do not benefit from AFTA. This paper then concluded that the overall utilization rates of Thai exports to Brunei was 5.76%, Indonesia's was 51.67%, Malaysia's was 20.79%, the Philippines' was 58.57%, Singapore's was 3.53%, Cambodia's was 2.82%, Laos' was 2.99%, Myanmar's was 1.68%, and Vietnam's was 54.65%. Interestingly, the utilization rates for Thai exports were highest in countries with a middle level of development: namely, Indonesia, the Philippines, and Vietnam (Leelawath, 2012)

Other studies at the industry and national levels, however, also suggest that utilization rates of all FTA preferences in East Asian nations, and not just those under AFTA, are low. Overall, FTAs throughout the region remain underutilized. A study by Hayakama, et al. (2009) empirically examined the determinants on the utilization of the Korean-ASEAN Free Trade Agreement (KAFTA). The study offered specific insight on the values of FTAs on extra-ASEAN trade and the effect they have on further regional economic integration. Using a specific database provided by the Korean Customs and Trade Development Institute; the study analyzed the effects of tariff margins, ROOs, and average export volume on the utilization rates of KAFTA's preferential tariffs.

The study agreed with Leelawath's assertion that "the utilization of the FTA requires firms to incur considerable amounts of additional cost and, due to such, additional costs, not all exporters regularly utilize FTA procedures in FTAs relating to both intra-ASEAN trade and extra-ASEAN trade. Additionally, the study firmly maintained that the use of FTAs could generate benefits for firms in terms of saving on tariff payments, as FTA preferential rates are usually lower than standard tariff rates. The greater the tariff margin, the more substantial the benefits for firms using utilizing FTA rates will be (Hayakawa, Laksanapanyakul, & Shiino, Some Practicial Guidance for the Computation of Free Trade Agreement Utilization Rates, 2013). Thus, it was asserted that the greater the tariff margin and the less restrictive the ROOs, the more likely a firm would be to use the FTA scheme. It was summarized that "the amount of a specific export transaction is very important because a larger export volume leads to a larger saving on tariff payments, even if the tariff margin is insignificant"(Hayakawa, Laksanapanyakul, & Shiino, Some Practicial Guidance for the Computation of Free Trade Agreement Utilization Rates, 2013). So, ultimately, the three factors of tariff margin (margin effects), rules of origin restrictiveness (ROO effect), and average export volume (scale effect) determine the utilization rate of all FTAs like AFTA and KAFTA.

Another argument that persists in the above studies is on the use of COO data (export data) or customs data (import data). One study suggests that both the data used in the above studies on COO and customs data have their own merits and demerits (Hayakawa, Kim, Laksanapanyakul, & Shiino, 2013). In this paper, it was pointed out that COO data are believed to overestimate the preferential exports as some of the exporters might not succeed in exporting their products under FTA schemes even after obtaining the COOs. This argument actually does not reflect the operational certification process of COO under AFTA. Chapter 3, Annex 8 and Rule 10 of the ASEAN Trade in Goods Agreement (ATIGA), stresses the importance of the declared shipment date and any diversion, more than 3 days would void the COO (ASEAN Secretariat, 2015). It also further suggests that the number of COOs produced by an authority does not include those COO that were void. Therefore, the use of COO data seems to be equally accurate if data keeping by authorities followed the operational

guideline. An overestimation as suggested in the study could possibly happen in an FTA with loose operational guidelines.

Due to the unavailability or limited data from both methods above, the study on AFTA utilization rates were expanded to two other methods namely CEPT and MFN rates comparison to trade volume and conducting survey with firms involved in businesses in ASEAN. Some studies have compared the margin of difference between CEPT rates and MFN rates to suggest utilization is higher when the margins are higher, thus reflected in the trade volumes. In reality, though the MFN tariff rates and CEPT rates vary greatly among countries, the differences between the two rates are relatively small within AFTA. In their study, Pelkmans-Balaoing and Manchin (2007) noted that the "rates envisioned here [in AFTA are] certainly low relative to the known record of other discriminatory schemes". In fact, average MFN rates for AFTA members tend to be less than 10%; while there usually is only a difference of about 5% or less between MFN rates and preferential rates. Though, newer ASEAN members such as Cambodia, Lao PDR, Myanmar and Vietnam usually find themselves excluded from these calculations. Small discrepancies between these two tariff rates can sometimes restrict the attractiveness of using the CEPT scheme under AFTA, especially when it can be expensive for exporters to request the preferential rates. The study further asserted that "even if preferences would have been fully utilized, no matter how marginal, the amount of trade affected would only be in the region of 35% -37% of total intra-ASEAN imports"(Manchin & Pelkmans-Balaoing, 2007). After all, the study also noted that the products where the difference between CEPT and MFN rates that is non-existent account for 62.78% and 65.34% of total value of intra-ASEAN imports in 2001 and 2003, respectively. Ultimately, even if increased participation in AFTA would benefit exporters in Thailand (Leelawath, 2012), it remains doubtful that the enhanced utilization of AFTA preferences would significantly further increase regional trade. Manchin and Pelkmans-Balaoing (2007) also noted that the "rates envisioned here [in AFTA are] certainly low relative to the known record of other discriminatory schemes". In fact, average MFN rates for AFTA members tend to be less than 10%; while there usually is only a difference of about 5% or less between MFN rates and preferential rates. Though, newer ASEAN members such as Cambodia, Lao PDR, Myanmar and Vietnam usually find themselves excluded from these calculations. Small discrepancies between these two tariff rates can sometimes restrict the attractiveness of using the CEPT scheme under AFTA, especially when it can be expensive for exporters to request the preferential rates.

From firms' perspective, a study conducted by Kohpaiboon and Jongwanich (2006) examined the response of private sectors from FTA. The study suggests that the product coverage is limited for Thailand's manufacturing industry and the products that have benefited from FTA tariff preferences so far are highly concentrated. The key finding from the econometric analysis is that as rules of origin (ROO) constraints are binding empirically, the ability to comply with ROO as well as

tariff margin does matter in firms' decisions to use FTAs. The estimated cost in compiling ROO is equivalent to a tariff in the range of 2% to 10%. Besides, the FTA impact on exports is conditioned by trade volume during the pre-signing FTA period. The key policy inference is that it is unlikely to be able to promote exports by maximizing the number of FTAs, while ignoring the nature of FTA partners. The nature of the FTA partner does matter in establishing whether the signed FTA would be useful. In addition, for Japan and countries which are enthusiastic about FTAs as a mode for further liberalization, FTA negotiation on tariff cuts schedules must be undertaken in a more comprehensive way in which ROO and trade facilitation issues must be incorporated in the negotiation.

The utilization of AFTA from the firms perspective was also low as suggested by Hakayakawa et al. (2009) who investigated Japanese affiliated firms in ASEAN that use FTAs in their exporting by using unique affiliate-level data. The findings among others showed that only 14.9% of Malaysian exporters who use AFTA compared Singaporean exporters at 31.8% (Hayakawa, Hiratsuka, Shiino, & Sukegawa, 2009). The alarming finding was 58.4% of exporting firms did not even have the intention to use AFTA and 61.1% of importing firm also did not intend to use AFTA. Among the key reasons outlined for not using FTA is surprisingly not due to COO procedures, cost or complexity as suggested by most studies. The key reasons were they received tariff exemption (52.7%) and there is already a low tariff for their exports (23.6%). The study concluded that the larger the affiliate is, or the more diversified its procurements' origins are, the more likely it is to utilize an FTA scheme in its exporting.

3. Methods and Data

This study employed a similar method used by Pomfret, Kaufmann and Findlay (2010), where utilization rate is defined as ratio of value receiving preferential treatment against total value of imports. However, since the difference between this study and the study by Pomfret, Kaufmann and Findlay (2010) is the data, in which the latter has used customs data from the import viewpoint. This study, however, focuses on the preferential treatment of AFTA under CEPT/ATIGA through the issuance of the Certificate of Origin (COO). For this purpose, the concept adopted by Pomfret, Kaufmann and Findlay (2010) is adjusted as the ratio of value receiving preferential treatment against the total value of exports. The concept is also guided by the work of Hayakawa, Laksanapanyakul, & Shiino (2013) (Hayakawa, Laksanapanyakul, & Shiino, Some Practicial Guidance for the Computation of Free Trade Agreement Utilization Rates, 2013)where both methods of customs data from the importer's end and CO data from the exporter's end is taken into consideration. The basic utilization concept is described as follows:

Utilization Rate *(Expressed in %)* =

$$\frac{\text{Value received preferential treatment under CEPT/ATIGA}}{}$$

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Value of Exports

The formulation above works for the aggregate and disaggregated value. For the purpose of this study, the utilization rate concept above is divided into two parts. First the Generalized Utilization Rate (GUR) and second the Adjusted Utilization Rate (AUR). GUR is the ratio between the values of COO per tariff line for the corresponding year against the total exports to the countries available for export in AFTA. In this case, the numerator is the value of COOs per tariff line at HS2 level for the years 2007 to 2011. The numbers of tariff lines involved are 99 tariff lines. The denominator is the value of Malaysia's export to all ASEAN countries. Both the values are in USD. The mathematical illustration of GUR in percentage is as follows:

GUR (t)*ij*= (X Co(t)*ij*) / (X(t)*ij*)
Where:
GUR (t)*ij* = General Utilization Rate of CEPT/ATIGA based on COO for country i exporting to ASEAN j for tariff line t;
X Co (t) *ij* = Volume of export which acquires the COO, for country i to ASEAN j for tariff line t; and
X(t)*ij* = Total value of export of country i to ASEAN j for tariff line t

AUR on the other hand is defined as the ratio between the values of COO per tariff line for the corresponding year against against the total exports to the countries available for export in AFTA excluding values of MFN Proxy (here defined as values of Singapore). Singapore is chosen as a proxy to reflect the MFN tariff as all its tariff rates are at 0%. In this case, the numerator is the value of COs per tariff line at HS2 level for the years 2007 to 2011. The number of tariff lines involved are 99 tariff lines. The denominator is the value of Malaysia's export to ASEAN minus the export values to Singapore. Both the values are in USD. The mathematical illustration of AUR is as follows:

AUR (t)*ij*= (X Co(t)*ij*) / (X*net*(t)*ij*)
Where:
AUR (t)*ij* = Adjusted Utilization Rate of CEPT/ATIGA based on CO for country i exporting to ASEAN j for tariff line t;
X Co (t) *ij* = Volume of export which acquires the CO, for country i to ASEAN j for tariff line t; and
X*net*(t)*ij* = Total value of export to ASEAN country minus export value for MFN Proxy for tariff line t

The data on the utilization rate is gathered at transaction level (values declared under Form D[3]) for Malaysia from year 2007 to 2011 at FOB rate. The data used is the compilation from the Ministry of International Trade and Industry, Malaysia. The available data also consist of HS2 level values for 99 tariff lines of goods. The data on Malaysia's export to ASEAN countries at HS2 level from 2007 to 2011 is obtained from the ASEAN Secretariat Statistics Database (ASEAN Secretariat, 2015). For the purpose of both calculations of GUR and AUR, the value certified with COO in the obtained records is assumed as exported to ASEAN countries. Since the data provided by the Ministry of International Trade and Industry, Malaysia is in RM, the effective exchange rate for the corresponding years is calculated using the average rate based on daily 12.00 pm count data of Bank Negara Malaysia.

4. Results and Discussion

The results of both GUR and AUR rates at aggregate level for all products were considerably low for the period of 2007 to 2011. GUR in 2007 recorded 8.7%, a rate that gradually increased to 9.7% in 2008, 12.8% in 2009, 17.5% in 2010 and 20% in 2011. The average of 13.7% for the period of 2007 to 2011 is very low as it shows that not many exporters in Malaysia take advantage of AFTA. It also suggests that preferential tariff under AFTA was not significant enough to influence the export value of Malaysia to ASEAN. It only consist of very low fraction of Malaysia's export to ASEAN and the increase in exports to ASEAN cannot be attributed to AFTA or its preferential tariff. However, there seemed to be an increasing trend of GUR from 2007 to 2011. The highest increase was between year 2009 to 2010 which recorded an increase from 12.8% to 17.5%. The increasing trend of GUR was also inconsistent with the export trend of Malaysia to ASEAN as GUR had increased despite some export trend fluctuation for the same period. The trend suggests that utilization of preferential tariff was increasing regardless of what the volume of export was. Although this is a positive outlook, a further investigation at the product level would be able to explain the trend and perhaps the opportunities ahead. Table 1 below shows the recorded GUR, AUR and the percentage of difference between both GUR and AUR.

Table 1 : GUR, AUR and Difference for Malaysia's export to ASEAN 2007-2011

Year	Generalized Utilization Rate (GUR)	Adjusted Utilization Rate (AUR)	Difference
2007	8.7%	20.0%	11.3%
2008	9.7%	20.6%	10.9%
2009	12.8%	22.7%	9.9%
2010	17.5%	25.4%	7.9%
2011	20.0%	26.2%	6.2%
Average	**13.7%**	**23.0%**	**9.3%**

[3] Form D or Certificate of Origin is a document that certifies a product with the requirements of Rules of Origin under AFTA. Only products with this Form D issued by the authority of the exporting country would be able to enjoy tariffs under AFTA when the product is imported by another country under AFTA.

When the rates for GUR exclude the exports to Singapore as a proxy for MFN rates (rates at 0%, which suggest that preferential tariff is not significant), the values of AUR also showed an increasing trend from 2007 to 2011. However, AUR remained low for the period of 2007 to 2011 and the average AUR recorded was only 23%. The inclusion of the MFN proxy as explained in the section above is to exclude the majority of products that would undergo the MFN tariff and definitely not use preferential tariff under AFTA. This step was initially adopted to eliminate the products that would automatically not benefit from the preferential tariff although the tariff lines form part of the preferential tariff. By doing this, it was expected that the utilization rate would increase, as it would only focus on product lines that was significant to the preferential tariffs. Despite eliminating the MFN proxy product lines represented by Singapore, the utilization rate remained low with an average of 23% (AUR). Although the rate is around 10% higher than average GUR, it further suggests that at the outset, MFN tariffs does not significantly effect to an increase in preferential tariff utilization, however, an investigation at product level would be able to evaluate the trend more comprehensively. It also must be noted that the difference of GUR and AUR value as shown in Table 1, reflects a decreasing trend. The gap between GUR and AUR decreased from 11.3% in 2007 to 6.2% in 2011. Since the calculations were made with the assumption that MFN tariffs was already embedded in the system, the reduction in this gap could explain that there was a significant increase of products that utilized the preferential tariff despite the existing MFN tariffs. This trend however also reflects that with the reducing gap, the value of both GUR and AUR would be leveled under the current conditions as the MFN tariffs pose as an embedded competition in the system. Therefore, whatever it takes, this trend suggests that Malaysia's export that is influenced by AFTA would always remain at certain threshold level and the potential for full utilization of the preferential tariff will not exist not only because of the existing MFN tariff embedded in the system but also the atmospherics of tariff lines liberalization by ASEAN members.

To have a more comprehensive understanding of the trends above, GUR was calculated at HS2 product levels and the top ten recorded GUR is shown in Table 2 below. GUR that recorded the highest rates for the same period of time are HS87 (Vehicles other than Railway or Tramway Rolling-Stock and parts thereof) at 83%, HS40 (Rubber and Articles) at 70%, HS09 (Coffee, Tea and Spices) at 63%, HS57 (Carpets and Other Textile Floor Coverings) at 63% and HS62 (Articles of Apparel and Clothing Accessories) at 56%. The top ten products for GUR shows that preferential tariff was really useful in exports of these products and AFTA benefitted these products. On the other end, for the whole period of 2007 to 2011, 29 same tariff lines recorded 0% GUR, which shows that there were no shift at all for exporters to use preferential tariff for the 29 tariff lines. It could also mean that either the ROO for these tariff lines were relatively too cost intensive or the MFN rates for these products were liberalized for most ASEAN countries. This shows that despite having preferential tariffs for the 29 tariff lines, this did not benefit Malaysia at all.

The result of AUR at HS2 product level was outstanding. As shown in Table 3 below, the top ten products recorded rates ranging from 79% to 100%. There were also 6 tariff lines that had above 90% rates. These were HS91 (Clock and Watches) at 100%, HS87 (Vehicles other than Railway parts etc) at 99%, HS57 (Carpets and Other Textile Floor Coverings) at 94%, HS09 (Coffee, Tea and Spices) at 94%, HS62 (Articles of Apparel and Clothing) at 94%, and HS81 (Other Base Metals, Cermets etc) at 91%. It was also observed that most tariff lines at 0% for AUR suggest that the export value of Malaysia for that particular tariff line was concentrated to Singapore. This suggests that these products are highly dependent on AFTA's preferential tariff and some products fully utilize the preferential tariffs. It can also be summarized that these products reaped the most benefits of AFTA for Malaysia's export.

Table 2: Top ten products at HS2 level for GUR

HS Code	2007	2008	2009	2010	2011	Average
87:VEHICLES OTHER THAN RAILWAY OR TRAMWAY ROLLING-STOCK, AND PARTS AND ACCESSORIES THEREOF	65%	89%	83%	80%	100%	**83%**
40:RUBBER AND ARTICLES THEREOF	38%	61%	96%	58%	100%	**70%**
09:COFFEE, TEA, MAT+ AND SPICES	61%	57%	35%	88%	76%	**63%**
57:CARPETS AND OTHER TEXTILE FLOOR COVERINGS	32%	29%	83%	83%	89%	**63%**
62:ARTICLES OF APPAREL AND CLOTHING ACCESSORIES, NOT KNITTED OR CROCHETED	36%	33%	50%	62%	100%	**56%**
99:OTHER PRODUCTS	0%	1%	100%	100%	64%	**53%**
81:OTHER BASE METALS; CERMETS; ARTICLES THEREOF	49%	100%	20%	70%	18%	**51%**
92:MUSICAL INSTRUMENTS; PARTS AND ACCESSORIES OF SUCH ARTICLES	41%	54%	33%	49%	60%	**47%**
18:COCOA AND COCOA PREPARATIONS	28%	59%	47%	42%	58%	**47%**
55:MAN-MADE STAPLE FIBRES	52%	32%	38%	46%	38%	**41%**

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Table 3: Top ten products at HS2 level for AUR

HS Code	2007	2008	2009	2010	2011	Average
91:CLOCKS AND WATCHES AND PARTS THEREOF	100%	100%	100%	100%	100%	**100%**
87:VEHICLES OTHER THAN RAILWAY OR TRAMWAY ROLLING-STOCK, AND PARTS AND ACCESSORIES THEREOF	97%	100%	100%	98%	100%	**99%**
57:CARPETS AND OTHER TEXTILE FLOOR COVERINGS	90%	84%	98%	100%	100%	**94%**
09:COFFEE, TEA, MAT+ AND SPICES	100%	100%	71%	100%	100%	**94%**
62:ARTICLES OF APPAREL AND CLOTHING ACCESSORIES, NOT KNITTED OR CROCHETED	91%	78%	100%	100%	100%	**94%**
81:OTHER BASE METALS; CERMETS; ARTICLES THEREOF	100%	100%	78%	100%	78%	**91%**
92:MUSICAL INSTRUMENTS; PARTS AND ACCESSORIES OF SUCH ARTICLES	85%	100%	60%	100%	100%	**89%**
40:RUBBER AND ARTICLES THEREOF	53%	87%	100%	76%	100%	**83%**
61:ARTICLES OF APPAREL AND CLOTHING ACCESSORIES, KNITTED OR CROCHETED	87%	61%	100%	100%	53%	**80%**
18:COCOA AND COCOA PREPARATIONS	53%	100%	83%	67%	92%	**79%**

It is interesting to note that despite the increase in value as expected for the top ten products from GUR to AUR, the rank of the top ten products did not change significantly. Eight out of ten HS tariff line remained in the top ten for both GUR and AUR which signifies that the use of preferential tariff were only concentrated in similar products. In addition, by excluding Singapore in AUR, the values increased compared to GUR, however, taking into account that 54% of Malaysia's exports to ASEAN for the same period of time was to Singapore, the results was expected to

have significant difference. This generally shows that in terms of trend, MFN tariff that were liberalized do not have significant effect on utilization of preference tariffs. Even after taking out 54% of Malaysia's total exports to ASEAN by excluding Singapore, the utilization rate only increased around 10%. This suggests that utilization of preferential tariff was only focused in certain sectors that were not competing with the MFN tariffs.

However, AUR values at product level increased significantly only for products that have high export volume to Singapore thus suggesting that the products that were concentrated to other export destinations besides Singapore were not much affected by the AUR values. This further suggests that the MFN rate against the CEPT rates creates competition for exporters from Malaysia to choose its export destination. Second, the AUR values also suggest that products with concentration in markets other than Singapore (MFN Proxy) have a higher utilization levels although the volume of export can be considerably low. In addition, another important reason for underutilization of certain tariff lines is due to the regional production chains where non-ASEAN import content could be considerably high, thus failing those products to advance with the ROO criteria.

Besides the aggregate value and product level export, another important aspect of the utilization rates must also take into account of the export volume. Of the top ten HS2 export value of Malaysia to ASEAN for 2007-2011, the recorded GUR and AUR were considerably low. As shown in Table 4 below, Malaysia's main export to ASEAN is HS85 (Electrical Machinery and Equipment etc), which recorded GUR at 23%, and the highest AUR at 73% in this list. The recorded AUR for HS85 can be related to the exports of Malaysia to countries besides Singapore that use the preferential tariff. Only this tariff line shows an efficient use of the preferential tariff for large trade volume. Some other product lines in Table 4 showed low utilization level, ranging from 0% to 38%. Despite the fact that there were many product lines above 90% for AUR as suggested above, none of those product lines represent a high value of export. The results in Table 4 therefore would suggest that, Malaysia should focus on increasing the utilization rate for the products of higher export value. Although some of the products in the top ten list in Table 4 such as HS85, HS84, HS73 and HS90 might be part of an assembly line of products belonging to some multinationals, which would not enable the products to receive the COO, there is a need to explore ways to increase the utilization of preferential tariff in these product lines. At the same time, other product lines such as HS39, HS29, HS15 and HS72 seems to have potential for increased utilization. In order for Malaysia to increase its export to ASEAN, the efficient utilization of preferential tariff for these high value exports would enable Malaysia to increase its export to ASEAN as well as compete with other countries in the region.

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Table 4: Top Ten HS2 Malaysia's Average Export Value to ASEAN and Corresponding GUR and AUR Values (2007-2011)

HS Code	Export Value to ASEAN (Average 2007-2011) USD	GUR	AUR
85:ELECTRICAL MACHINERY AND EQUIPMENT AND PARTS THEREOF; ETC	12,362,150,766	23%	73%
27:MINERAL FUELS, MINERAL OILS AND PRODUCTS OF THEIR DISTILLATION; BITUMINOUS SUBSTANCES; MINERAL WAXES	9,316,111,073	0%	1%
84:NUCLEAR REACTORS, BOILERS, MACHINERY AND MECHANICAL APPLIANCES; PARTS THEREOF	7,152,267,204	10%	21%
39:PLASTICS AND ARTICLES THEREOF	2,048,974,940	16%	24%
15:ANIMAL OR VEGETABLE FATS AND OILS AND THEIR CLEAVAGE PRODUCTS; PREPARED EDIBLE FATS; ANIMAL OR VEGETABLE WAXES	1,412,248,893	24%	38%
29:ORGANIC CHEMICALS	1,131,231,838	23%	31%
73:ARTICLES OF IRON OR STEEL	1,088,182,589	4%	11%
72:IRON AND STEEL	1,065,852,190	7%	9%
90:OPTICAL, PHOTOGRAPHIC, CINEMATOGRAPHIC, MEASURING, CHECKING, PRECISION, MEDICAL OR SURGICAL INSTRUMENTS AND APPARATUS; PARTS AND ACCESSORIES THEREOF	998,110,054	8%	16%

In terms of Malaysia's export concentration to ASEAN, the top ten product lines showed a very surprisingly low level of utilization. Table 5 below shows the top ten product lines with highest concentration to ASEAN and its corresponding GUR and AUR values. Five product lines recorded 0% for both GUR and AUR and others recorded mostly under 10% utilization. Taking into consideration that Malaysia is focused to export to the ASEAN markets for these products, a higher utilization rate was expected. Nevertheless, it suggests that these could be the potential product lines that Malaysia could focus on increasing its utilization to remain competitive in exporting to ASEAN.

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Table 5: Top Ten HS2 Malaysia's Export to ASEAN vs World (Concentration) and Corresponding GUR and AUR Values (2007-2011)

HS Code	Average Export % to ASEAN vs World	GUR	AUR
01:LIVE ANIMALS	99%	0%	0%
07:EDIBLE VEGETABLES AND CERTAIN ROOTS AND TUBERS	85%	1%	4%
22:BEVERAGES, SPIRITS AND VINEGAR	85%	8%	13%
47:PULP OF WOOD OR OF OTHER FIBROUS CELLULOSIC MATERIAL; RECOVERED (WASTE AND SCRAP) PAPER OR PAPERBOARD	84%	5%	5%
12:OIL SEEDS AND OLEAGINOUS FRUITS; MISCELLANEOUS GRAINS, SEEDS AND FRUIT; INDUSTRIAL OR MEDICINAL PLANTS; STRAW AND FODDER	82%	0%	0%
60:KNITTED OR CROCHETED FABRICS	82%	2%	3%
10:CEREALS	80%	0%	0%
66:UMBRELLAS, SUN UMBRELLAS, WALKING-STICKS, SEAT-STICKS, WHIPS, RIDING-CROPS AND PARTS THEREOF	75%	0%	0%
36:EXPLOSIVES; PYROTECHNIC PRODUCTS; MATCHES; PYROPHORIC ALLOYS; CERTAIN COMBUSTIBLE PREPARATIONS	74%	0%	0%
91:CLOCKS AND WATCHES AND PARTS THEREOF	73%	33%	100%

Conclusions

The question of whether preferential tariffs under AFTA benefitted Malaysia as an exporter can be answered in two angles. Firstly, preferential tariffs under AFTA in general benefitted Malaysia's export only to a very low degree, although the trend of the utilization seems to be increasing. Therefore it is quite difficult to imply that AFTA has directly benefitted Malaysia's export taking into account that of the 25% of Malaysia's total export to the world is to ASEAN and from this 25%, only 13.7% (on average) utilized the preferential tariff under AFTA. However, it can be noted that there were some product lines, which recorded a high utilization rate. Although these product lines were mostly not the main exports or represent a high value, these

product lines effectively used the preferential tariffs. At the same time, it also suggests that perhaps small and medium sized enterprises could have reaped the benefits of AFTA and these products perhaps were competitive enough to be exported to ASEAN markets.

Secondly, when the study analyzed both GUR and AUR, it was observed that despite bringing in a "MFN Proxy", the utilization level remained for the same product lines. Only certain products used the preferential tariffs and the MFN proxy did not alter much of the aggregate level data but at product level, certain products recorded full utilization and suggest that there were no variation in terms of products that used preferential tariffs. It is therefore safe to say that wide-ranging tariff liberalization plan is less significant to Malaysia's export as the impact on utilization is only for some products.

Making a comparison with the MFN tariffs further shows that the preferential tariff would only be significant for products with certain criteria and is concentrated only in certain specific product and market. This implies that although significant reforms are made to the restrictive rules of origin, it is expected that the degree of utilization will not move to a higher level. Since the preferential tariff under AFTA is complex with different levels of tariff reductions, focus on increasing the level of utilization should be on existing products that actually use the preferential tariff. Unless there are new industries or an elevated demand for new products, the trend of preference utilization would remain in the similar products. Focus also should be given to product lines with high value and considerably low level of utilization. Besides the commendable efforts to reduce trade barriers, Malaysia could actually focus in increasing the utilization of AFTA for its high value exports to ASEAN by reassessing the applicability of the preferential tariff to its export destinations, which include the assessment of MFN tariffs and rules of origin.

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